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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,321	06/29/2001	Preston J. Hunt	42390P11147	8383

7590 10/19/2006

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EXAMINER

POLTORAK, PIOTR

ART UNIT PAPER NUMBER

2134

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/896,321	Applicant(s) HUNT ET AL.	
	Examiner Peter Poltorak	Art Unit 2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/3/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,7,10-12,20-23,25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,7,10-12,20-23,25 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/03/06 has been entered.
2. The Amendment introduces a new limitation into the originally sole independent 1, 10 and 20, dependent claims 2-4, 6-7, 11 and 21-22. Claims 23-28 are cancelled.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

Response to Amendment

4. Applicant's arguments have been carefully considered.
5. Applicant argues that the art of record, Margolus in particular, does not teach "prior to synchronizing the client files with the server files, matching client file contents ... with server file contents ... to determine whether the client files and the server files are to be synchronized; and synchronizing the client files and the server files, if the client file contents and the server file contents do not match". Applicant attempts to contrast the newly introduced and argued limitations with Margolus disclosure by stating that Margolus teaching "is not the same as" the new limitations. However,

applicant does not offer any evidence or explanation supporting applicant's assertion. As a result the arguments form mere opinions unsubstantiated by facts.

6. The newly introduced limitations are addressed in this Office Action, below.
7. Claims 1-4, 6-7, 10-12 and 20-22 have been examined.

Claim Rejections - 35 USC § 112

8. Claims 1-4, 6-7, 10-12, 20-23 and 25-26 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention.
9. The term "the server message digest" is not clear recited in claims 1, 10 and 20 is not understood. It is not whether the term refers to a specific, not recited previously message digest (essentially lacking antecedent basis), whether the term refers to *"the server message digests"*, *"each server message digest"* or whether the intended meaning of the term refers to *one of the "each server message digest"*. For purposes of further examination the phrase is treated *"the server message digests"*.
10. Claims 20-22 seem to have contradictory limitations. Claims 20-22 suggest that the recited functions: generating client and server message digests as well as matching contents using the digests and causing adding missing client file contents to the server file contents and the client file contents and the server file contents, are done by the a single machine ("causes a machine to"). However, the limitations explicitly

cite interaction (synchronization) between two distinct machines (a client and a server).

11. Claims 2-3 and 21-22 are not clear. For example, claim 2 recites: "... adding missing client file contents to the server file contents...". Compare it with the limitation of claim 22: "add missing server file contents to the server file contents". In particular, it is not clear how one could add something that is missing ("adding missing client file contents", claim 2).

If applicant intended to underline a file contents exchange between a client and a server, wherein server contents are updated with the version stored on a client, the examiner suggests the language such as "... adding client file contents that are missing on the server to the server".

12. For purposes of further examination the phrase is treated as though file contents not found in a system are updated with file contents from another system.

13. Claims 2-4, 6-7, 11-12, 21-23 and 25-26 are rejected by virtue of their dependence.

Claim Rejections - 35 USC § 102 or 103

14. Claims 1-2, 4, 6, 10-11, 20-22 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Margolus (U.S. Pub. No. 20040143743).

As per claims 1-2, 4, 6, 10-12, 20-22 Margolus teaches a method comprising generating client message digests corresponding to client files (files), each client message digest (fingerprints) corresponding to each client file on a client [7], generating server message digests corresponding to a server files, each server message digest corresponding to a server file on a server [7].

In BBS environment a server is coupled to clients over a network (e.g. Webster, pg. 57).

Prior to synchronizing the client files with the server files, matching client file contents from the client message digests with server file contents from the server message digest to determine whether the client files and the server files are to be synchronized [7], and synchronizing a client file and a server file, if a client file content and a server file contents do not match [7]. Although, Margolus does not explicitly teach synchronizing the clients files and the server files, if the client file contents and the server file contents do not match, the limitation, in not inherent, is at least implicit. In BBS environment there multiple clients attempt to post multiple file contents and the situation where more than one file needs to by synchronized as well that more than one client need to synchronized files is very likely.

As per claim 12, Margolus teaches the cryptographic hash comprising 128-160 bits (SHA-1 [59]).

As per claim 7 the examiner points out that BBS initializes comparisons of message digests upon a client attempt to deposit files [7]. Given the fact that clients frequently attempt to deposit a plurality of files (copy/past folders or back-up

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process) that would require a plurality of message digests copies to be sent to the server for comparing with server's versions of message digests, combining the client message digests into a single client message digest, if not inherent, it would have been obvious at least obvious to one of ordinary skill in the art at the time of applicant's invention given the benefit of speed and flexibility (e.g. no need to establish sessions for each of the message digests copy to be transferred).

As per claims 3, Official Notice is taken that it is old in the art of art of computing to synchronize data both direction (between a client and a server and between a server and a client: data backup and recovery, e.g. Pfleeger, "Backups, pg. 460). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to adding missing server file contents to the client file contents given the benefit of data recovery.

Claim Rejections - 35 USC § 103

15. Claims 3 is rejected under 35 U.S.C. 103(a) as obvious over Margolus (U.S. Pub. No. 20040143743) in view of Chan (U.S. Patent No. 6748538) and Bolosky (U.S. Pub. No. 20020194484).

Combining client message digests into a single message digests was discussed supra. Even if one were to argue combining the client message digests into a single client message digest as discussed above, Chan teaches combining client message digests into a single client message digest (col. 3 line 45- col. 4 line 7) and Bolosky provides the motivation to combine.

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It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine message digests into a single client message digest given the benefit of performing fewer computations.

Conclusion

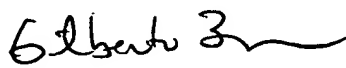
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Poltorak whose telephone number is (571) 272-3840. The examiner can normally be reached Monday through Thursday from 9:00 a.m. to 4:00 p.m. and alternate Fridays from 9:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis Jacques can be reached on (571)272-6962. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



10/13/06



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